

What is claimed is:

1 1. A method comprising:

2 monitoring a bit in a coprocessor included in a
3 packet engine that represents an operation associated
4 with a packet processor that includes the packet engine;
5 and

6 providing the packet engine the status of the bit.

1 2. The method of claim 1 wherein monitoring the bit includes
2 maintaining an indicator representing the status of the bit.

1 3. The method of claim 1 wherein monitoring the bit includes
2 maintaining an index identifying the bit.

1 4. The method of claim 1 wherein monitoring the bit includes
2 maintaining an indicator representing completion of monitoring
3 of the bit.

1 5. The method of claim 1 wherein monitoring the bit includes
2 applying a logical mask to the bit.

1 6. The method of claim 1 wherein the bit represents servicing
2 status of a digital subscriber line.

1 7. The method of claim 1 wherein the bit is a portion of a
2 word.

1 8. A computer program product, tangibly embodied in an
2 information carrier, the computer program product being
3 operable to cause a machine to:

4 monitor a bit in a coprocessor included in a packet
5 engine that represents an operation associated with a
6 packet processor that includes the packet engine; and
7 provide the packet engine the status of the bit.

1 9. The computer program product of claim 8 wherein monitoring
2 the bit includes maintaining an indicator representing the
3 status of the bit.

1 10. The computer program product of claim 8 wherein
2 monitoring the bit includes maintaining an index identifying
3 the bit.

1 11. The computer program product of claim 8 monitoring the
2 bit includes maintaining an indicator representing completion
3 of monitoring of the bit.

1 12. The computer program product of claim 8 wherein
2 monitoring the bit includes applying a logical mask to the
3 bit.

1 13. The computer program product of claim 8 wherein the bit
2 represents servicing status of a digital subscriber line.

1 14. The computer program product of claim 8 wherein the bit
2 is a portion of a word.

1 15. A line monitor comprises:

2 a process to monitor a bit in a coprocessor included
3 in a packet engine that represents an operation
4 associated with a packet processor that includes the
5 packet engine; and

6 a process to provide the packet engine the status of
7 the bit.

1 16. The line monitor of claim 15 wherein monitoring the bit
2 includes maintaining an indicator representing the status of
3 the bit.

1 17. The line monitor of claim 15 wherein monitoring the bit
2 includes maintaining an index identifying the bit.

1 18. The line monitor of claim 15 wherein monitoring the bit
2 includes maintaining an indicator representing completion of
3 monitoring of the bit.

1 19. The line monitor of claim 15 wherein monitoring the bit
2 includes applying a logical mask to the bit.

1 20. The line monitor of claim 15 wherein the bit represents
2 servicing status of a digital subscriber line.

1 21. The line monitor of claim 15 wherein the bit is a portion
2 of a word.

1 22. A system comprising:

2 a coprocessor included in a packet engine that is
3 capable of,

4 monitoring a bit representing an operation
5 associated with a packet processor that includes the
6 packet engine; and

7 providing the packet engine the status of the
8 bit.

1 23. The system of claim 22 wherein monitoring the bit
2 includes maintaining an indicator representing the status of
3 the bit.

1 24. The system of claim 22 wherein monitoring the bit
2 includes maintaining an index identifying the bit.

1 25. A packet forwarding device comprising:

2 an input port for receiving packets;

3 an output for delivering the received packets; and

4 a coprocessor included in a packet engine that is
5 capable of,

6 monitoring a bit representing an operation
7 associated with a packet processor that includes the
8 packet engine, and
9 providing the packet engine the status of the
10 bit.

1 26. The packet forwarding device of claim 25 wherein
2 monitoring the bit includes maintaining an indicator
3 representing the status of the bit.

1 27. The packet forwarding device of claim 25 wherein
2 monitoring the bit includes maintaining an index identifying
3 the bit.

1 28. A method comprising:

2 monitoring a bit in a monitoring coprocessor
3 included in a network processing engine that represents
4 the servicing availability of a digital subscriber line
5 associated with a network processor that includes the
6 network processing engine; and
7 providing the network processing engine data
8 representing the servicing availability of the digital
9 subscriber line.

1 29. The method of claim 28 wherein monitoring the bit
2 includes maintaining an indicator representing that the
3 digital subscriber line is ready for servicing.

1 30. The method of claim 28 monitoring the bit includes
2 maintaining an index variable that stores an integer
3 identifying the digital subscriber line ready for servicing.